

What is claimed is :

1. An SOI structure comprising:

a substrate including a silicon substrate, a BOX layer and an SOI layer;

5 a well formed in a lower part of a device isolation area of the SOI layer so that a lower surface of the well is in contact with the BOX layer;

a field oxide film formed on a surface side within the well;

10 a gate line formed so as to be connected across an active area provided on the SOI layer and a portion of the field oxide film, the active area formed along two sides of the gate line and having a lower surface in contact with the BOX layer;

an insulation layer formed on the active area, gate line, and field oxide film;

15 an opening part formed within the insulation layer, the opening part opened in a full trench structure capable of partially exposing an active area of an adjacent transistor, and the opening part opened in a partial trench structure on the field oxide film to expose an upper part of the gate line; and

an LIC filled with conductive material in the opening part within the insulation layer.

2. The SOI structure of claim 1, wherein the LIC comprises Tungsten.

20 3. The SOI structure of claim 1, wherein the LIC comprises Copper.

4. A semiconductor structure comprising:

a substrate;

an insulating layer on the substrate;

25 a semiconductor layer disposed on the insulating layer;

a well formed in a lower part of the semiconductor layer,

a field oxide layer formed on a surface of the well;

20 a first active area formed in the semiconductor layer, the active layer adjacent to the well;

30 a gate line formed across a second active layer formed in the semiconductor layer, and across a portion of the field oxide layer;

an insulation layer formed on a portion of the first active area, and on the field oxide layer, the insulation layer covering a lower portion of the gate line; and

a metal fill extending in an opening in the insulation layer, the metal fill contacting both an upper portion of the gate line and the first active area.

5. The semiconductor structure of claim 4 wherein the metal fill comprises

5 Tungsten.

6. The semiconductor structure of claim 4 wherein the metal fill comprises

Copper.